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ABSTRACT

A survey was made of the use of time by 33 librarians and library assistants primarily concerned with book processing in the City of London Polytechnic's library. The purposes of the study were to obtain: 1) time and cost data for various library processes, and 2) information on the activities of the library staff involved. It was concluded that the survey provided useful data for the analysis of present operations and for future planning, that the data would be of interest to other libraries, and that the results suggest other useful investigations. A description is provided of the survey's design, procedures and analytical techniques and detailed time and cost data which relate to over 100 specific library tasks are listed. (PB)

ED 089764

CITY OF
LONDON
POLYTECHNIC

Library & Learning Resources Service

A diary survey to establish time & cost data for library processes

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SUMMARY

This document reports upon a survey of the use of time by 33 librarians and assistants primarily concerned with book processing. The survey was conducted using a diary technique. Results (which also include some earlier work using stop watch timing) are presented in a series of analyses by grade of staff and by library. For some processes unit time and costs are presented.

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A DIARY SURVEY TO ESTABLISH TIME AND COST DATA FOR LIBRARY PROCESSES

1. OBJECTIVES

The objectives of the study were to obtain:

.1 Time and cost data for the classification, cataloguing and processing procedures.

.2 Time and cost data on other library processes.

.3 Information on the activities of the library staff involved.

2. INTRODUCTION

.1 This investigation was carried out primarily to establish time and cost data for the present cataloguing, classification and processing procedures for book material in the CoLP Library and Learning Resources Service. These figures are necessary in order to examine properly the possibilities of alternative systems.

.2 It was assumed that the major cost of the cataloguing and processing sub systems is that of staff time. It was therefore necessary to obtain information on which grades of staff do what jobs, how long each job takes to do, and how long is actually spent by each member of staff on each job.

.3 Some timings for processing, cataloguing and classification had already been obtained from the processing unit at the Business Studies site by using a stopwatch. (For a brief description of the organisation of the CoLP LLRS see appendix 1). This technique allowed us to obtain some average timings for these processes, but gave no indication of how much staff time is actually available to carry out the processes. We also had doubts about the accuracy of the timed data. We felt that the data was accurate as far as it went but did not give the true working rate of the staff involved even if an average 5 hour working day was assumed.

Whilst the issue system was included in this survey we quickly realised that no really meaningful results would be obtained and that this was an area in which work measurement was more appropriate.

During the course of the survey the report by Ford (reference 3) was obtained and it was noted that our conclusions were borne out by him (page 8 of ref. 3)

.4 It was therefore decided to do a survey to obtain this data. The diary technique has been used for this in several libraries - notably at Birmingham[1] and Southampton[2] for costing cataloguing systems. We also decided to adopt this method with some changes.

.5 As a systems analysis of the Book Ordering and Processing had already been carried out in January and February 1973 (ref. 4) we had the necessary information on how the system operated. Thus the jobs could easily be briefly described and coded. This meant that the staff concerned in the diary survey only had to read off the codes and record these daily on the diary forms, together with a count of the number of items handled where requested. The diary design and format are more fully described in section 3.

.1 The diary survey has the advantage of being self recording and of collecting the maximum amount of usable data for the minimum of staff time.

.6 The diary was run for four weeks from the 29th July to 3rd August 1973. This coincided with certain alterations in the "normal" library routine which should be noted. These were:

.1 The ending of term which spread over the period of 13.7.73 to 27.7.73 as courses finished.

.2 Library staff holidays.

.3 A limited rearrangement of the Business Studies Library.

.4 Structural alterations affecting the Business Studies Library and Workroom, and the Central House Library.

.5 The planning and operation of a stock editing programme.

.6 Disruption of journal arrivals at the Navigation Library.

.7 Although there is no time in a library when routine is completely undisturbed we hope to carry out a follow up diary (probably over a shorter period) at a time of full academic activity. This should help to correct any imbalances that may appear in the results.

.8 This survey was basically designed, planned and run by Maureen Castens. Together with Mary Auckland, she carried out the preliminary and final analyses (i.e. up to the stage represented by Appendix 8.7). Alan Pritchard and MA carried out further data analysis to convert the results to the format of Section 6. MC wrote most of the report.

REFERENCES

1. Birmingham Libraries' Co-operative Mechanisation Project: Costing catalogue systems in three libraries. 1972.

2. Southampton University Library Automation Project Report No.3: The cost of cataloguing: three systems compared. by R.G. Woods. 1972.

3. Ford, G. . Library automation: guidelines to costing. March 1973. (OSTI REP 5153).

4. Pritchard, A. and Auckland, M. Book ordering and processing system study. City of London Polytechnic. Library and Learning Resources Service. March 1973.

3. SURVEY DESIGN

.1 The diary has been used as a method of collecting the data necessary for costing in several libraries as mentioned above.

.2 We decided to adopt a variation of the diary technique to examine both the cataloguing and processing sub systems in detail. As the staff engaged in this work also undertake to a greater or lesser extent a variety of other tasks it was decided to include these other activities in the diary, although they are described in far less specific detail.

.3 All non-book materials, and the personnel concerned exclusively with these were excluded from the diary.

.4 Binding was included in the survey in order to get a measure of the total time spent on this, as binding is under active investigation by the LLRS.

.5 The format of the diary is similar to that used at Southampton. Each person was provided with diary forms dividing the complete day (9.00 a.m. - 9.15 p.m.) into fifteen minute sections, and with a coded list of activities, so that all that needed to be entered was the code and where necessary, the number of items handled. It was felt, that this format would yield more precise data for costing, than the free diary formats used elsewhere.

.1 The diary forms (see Appendix 8.4) included an additional section for staff at the Business Studies Library site only, in which they were asked to record the number of journeys each day to and from the workroom and library. The names of the staff were requested to allow us to keep a check on returned forms and to note which grades of staff were involved in which activities.

.6 The activities pertaining to processing, cataloguing and classification were specified and coded in depth using the flow charts from the Book Ordering and Processing Report. The codes do not consistently represent one of the 'levels' defined in the Birmingham report, as to reduce the work involved activities which would probably continue unchanged in an alternative system were often grouped under a single code, however many elements they contained. Individual steps, which might change or disappear were separately coded and checked. Other library routines included were specified generally e.g. reservations, and also included on the code sheets. For a description of the systems examined see Section 5.

.1 In order to make the code sheets easier to understand and use, the codes were organised into groups e.g. Library and Counter Duties, Filing.

.2 As procedures vary from site library to site library individual code sheets were prepared. (See Appendix 8.4.1-8.4.5) Where staff moved from library to library they were supplied with all the relevant sets of code sheets.

.3 As the diary was being used to obtain costs a count of the number of items handled was needed. The 'count' codes were assigned to the jobs carried out in the processing and cataloguing processes. This was not done for certain jobs where the flow of work principle could be applied. For example at the Central House Library the number of author cards filed was counted as they were filed, but not as the filing was checked as the number of cards would remain constant.

.4 In order to establish: the number of books catalogued in the four week period, the number of multiple copies bought, whether the books were for the lending, degree reference, reference or counter stock, the number of added entries made and the number of moores slips that needed to by typed, we analysed the cataloguing slips when they had been returned to the cataloguing department by the typists. (A moores slip is typed for each title put into degree reference and counter stock at the Business Studies Library). This data was obtained at this site library only.

.5 A count of new requests for reservations and inter-library loans was also asked for.

.6 Staff were also requested to give the initials of the staff they talked to where this was recorded under the headings of general laison, instruction of other staff, or receiving help from another member of staff.

.7 A code for 'other' activities other than those specified was included. The Library Assistants were asked to give a brief explanation when they used this code.

.7 Although the code sheets were compiled mainly from the systems analysis flow charts (3.6 above) the details were checked at a preliminary stage by visiting the site libraries to conduct a series of informal interviews. This was to ensure that any changes of procedure were noted and proved to be very useful as an informal preparation for the actual diary survey.

.1 Provisional code sheets and a specimen diary form together with a covering letter (see Appendix 8.2) were sent round for comments and a series of trial runs were conducted.

.2 As a result of this, certain changes were made in in the code sheets.

.8 In view of the fact that the diary survey was to operate over a period of four weeks it was decided to issue each member of staff involved with a plastic folder containing 20 diary forms and the relevant code sheets.

.9 It was decided to include all the staff who played any part, even if only occasionally, in any of the processing, cataloguing, classification, issue and enquiry procedures relating to book material. The following members of staff therefore kept diaries:

*Sub-Librarian (Planning and Development)
*Sub-Librarian (Services)
Librarian: Grade II (Print Resources)
4 librarians: Grade II (Subject Specialists)
Research Librarian: Grade III
5 Site Librarians: Grade III
Librarian: Grade III (Cataloguing)
*Librarian: Grade III (Non-print Resources)
16 Library Assistants
2 Library Typists.

*partial diaries only were kept by these members of staff covering (respectively) cataloguing and classification; ordering and checking cataloguing; one counter duty. They are not included in the "personnel" tables.

4. SURVEY PROCEDURE AND ANALYSIS

.1 The time table of the diary survey was:

7.6.73-6.7.73 Design of the diary including interviews with staff, circulation of a provisional diary and a series of test runs at each library.

6.7.73. Circulation of the diary in plastic folders to each member of staff.

9.7.73-3.8.73 Completion of the diary forms. These were returned every day to the Planning Department for preliminary analysis. Any problems arising could therefore be sorted out immediately.

Analysis of the cataloguing slips at the Business Studies Library.

6.8.73-19.9.73 Final analysis of the diary forms.

.2 The diary was completed by a total of 33 staff out of a total of 49 staff employed in the LLRS.

.3 The preliminary analysis of the diary sheets entailed writing up daily totals for the amount of time spent on each coded activity onto interim analysis forms (see Appendix 8.6).

.1 Where more than one code appeared in a box (see Appendix 8.5) (if these were codes with no count of the number of items handled attached) the time allocated to the individual code was 15/No. of codes in the box (mins.) e.g. if 3 codes appeared in a box each code was allocated 5 minutes.

.2 If more than one code appeared in a box and at least one code had an item count attached the box was allocated a serial alphabetical identifier A-Z at this stage (see Appendix 8.5).

.4 The final analysis of the diary forms involved working out the final totals of the number of minutes spent on each coded activity, and the number of items handled where this was recorded. This was entered onto two sets of forms (see Appendix 8.7). One set applied to codes where no count was requested and the other set to 'count' codes.

.1 In some cases it was not possible to work this out immediately. This is where a 'count' code appeared with other codes in the same fifteen minute interval.

.2 This was overcome by obtaining an average time per item by using only the data where the relevant 'count' code together with its count of items handled had been recorded with no other codes. The mixed codes identified by their alphabetical serial letter were then given values deduced from this average.

.5 The final forms therefore show the amount of time spent on the activities specified by the staff involved.

.6 Costs of cataloguing and processing were then calculated.

.7 The iterative process for obtaining a more accurate measure of time spent, when, within a 15 minute period, 'count' and 'non count' activities were carried out, certainly involves more work at the analysis stage. We believe that, in view of the greater accuracy obtained, this extra time is well worthwhile.

5. THE SYSTEMS EXAMINED

.1 It is not proposed to describe the activities coded from 00 to 53 inclusively as these are self explanatory and relate to library routines included in the diary, but which do not form part of the processing, classification and cataloguing sub systems.

.2 The activities assigned codes from 54 to 110 do form part of these sub systems.

.1 These codes are arranged on the coding sheets in the order in which activities are carried out in the individual libraries (Appendices 8.4.1 to 8.4.4). This obviously does not apply to the coding sheets for the typists. (Appendix 8.4.5.)

.3 These, too, are largely self explanatory and follow fairly closely the procedures outlines in the Book Ordering and Processing Report. Some change has occured since this report but these have largely been the removal of unnecessary procedures rather than the creation of new ones.

.4 That report also gives samples of the level of cataloguing which has such an effect upon cataloguing times. It also provides general background information upon the LLRS (e.g. the classification systems in use).

6. RESULTS

.0 The results which follow are presented largely without comment as this was essentially a fact finding exercise. Any comments appear following the individual sets of results.

.1 An important point to note is that all percentages have been calculated on the basis of the Available Working Time which was calculated for each member of staff as follows:

AWT = Total time recorded less the total of

unpaid breaks (lunch + ½ hr. break for evening duty)

+

sick leave

TAWT = Total available working time.

.2 Cost figures for each grade were calculated on the basis of a formula provided by the Accounts Department. This formula was:

$$\text{Hourly rate} = \frac{(\text{Salary} \times 1.078) + £125}{1630}$$

Salary was taken as the mid-point of the scale

1.078 is the factor for employers superannuation contribution

£125 is the employers National Insurance contribution

This resulted in the following rates:

	£
CO1	.896
CO2	1.132
Librn 3	1.612
Librn 2	2.19
Librn 1	2.492

.3 Summary of results tables

6.4 Summary of codes

6.5 Time spent on tasks by library

6.6 Time spent on tasks: professional and non-professional

6.7 Time spent on tasks: individual grades

6.8 Cost of tasks by library

6.9 Cost of tasks: professional and non-professional

6.10 Cost of tasks: individual grades

6.11 Unit cost and times

6.12 Typists

6.4 SUMMARY OF CODES

GENERAL CATEGORIES

00	Lunch Breaks
01	Tea, coffee and other amenity breaks
*02	Sick leave
03	Courses and visits
04	Library staff liaison (please note initials)
05	Helping library staff including library school students (please note initials)
06	Receiving help from another member of staff (please note initials)
07	Supervision
08	Post
09	Financial records
10	Stationery

EXTERNAL RELATIONS

11	General liaison (with academic staff)
12	Library instruction
13	Consultation service for staff and students
14	Library publications (including all checking)
15	Typing library publications

INQUIRY WORK

16	External queries
17	Internal queries (from staff and students)

LIBRARY AND COUNTER DUTIES

18	Registration
19	Routine queries
20	Issuing and receiving material (includes filing the issue)
21	Missing books
22	Temporary reserve stock
23	Conversion to brown issue
24	Reservations
25	Interlibrary loans
26	Reshelving
27	Shelf tidying

OVERDUES

28	Sending overdues
29	Final letters
30	Typing final letters

LIBRARY MACHINERY

31	Photocopier
32	Microfilm and microfiche readers
*33	Operating reader-printer
34	Periodicals
35	Binding
36	Stock editing

SPECIAL COLLECTIONS AND SERVICES

37 Current contents folders
38 Photocopy and offprint files
39 Newspaper cuttings
40 SDI Services (planning and operation of any special dissemination services not included in any other coding)
41 Trade literature
*42 London collection
43 Prospectus collection

SPECIAL INDEXES

44 Periodical articles and illustrations
*45 Reports of court
[illegible] British and international standards
*47 Cmnd. papers
*48 Bills
*49 Indexing acts
50 Indexing statutory instruments

ORDERING

51 Pre-ordering (scanning, selection, checking and writing out order slips)
52 Typing order slips
53 Post-ordering (any filing or checking of returned order slips)

UNPACKING AND ACCESSIONING

54 Unpacking books (checking PN and/or invoice)
55 Checking arrived books against on-order file
56 Accessioning
57 Packing books for site libraries
58 Unpacking of accessioned books

PREPARING ACCESSIONED BOOKS FOR CATALOGUING & CLASSIFYING

59 Checking unpacked books against catalogue
60 Preparing checking slips
61 Checking checking slips with the catalogue

CATALOGUING, CLASSIFYING AND INDEXING

62 Catalogue maintenance (including corrections)
63 Classifying
64 Checking classified books against the catalogue
65 Cataloguing and classifying and indexing
66 Classifying and indexing
67 Cataloguing onto classified cards
68 Cataloguing onto slips
69 Cataloguing books onto accession cards
70 Subject indexing
71 Checking cataloguing
72 Checking cataloguing and classification
73 Duplicates (cataloguing and classifying)

TYPING CATALOGUE CARDS AND SUBJECT INDEX

74 Typing catalogue cards and slips
75 Typing added entries and binder lists
76 Typing subject index (cards)
77 Entering new terms into subject index

PROOF READING

78 Proof-reading typed catalogue cards
79 Checking added entries

SORTING CARDS AND SLIPS IN PREPARATION FOR FILING

80 Proof-reading, typing added entry headings and subject index
81 Sorting cards into classified, author and subject batches
82 Sorting cards into classified and author batches
83 Sorting cards into author order
84 Sorting cards into classified order
85 Sorting subject index cards into alphabetical order
*86 Sorting moores slips into author order
87 Sorting moores slips into classified order
87A Sorting catalogue slips

FILING OF CARDS AND SLIPS

88 Filing author cards
89 Checking filing of author cards
90 Filing into author catalogue (Psychology & Metallurgy)
91 Filing classified cards
92 Checking filing of classified cards
93 Filing subject index cards
*94 Checking filing of subject cards
95 Filing moores slips
96 Filing catalogue slips
97 Filing into accession file
*98 Filing into accessions file (Psychology & Metallurgy)
99 Upkeep of classified reference catalogue

PROCESSING BOOKS

100 Processing of books
101 Triggering books
102 Dymoing books
103 Checking processed books
104 Plasticising book jackets

PUTTING PROCESSED BOOKS INTO STOCK

105 Checking new books against reservations file
106 Sending slips to reserver and/or library representative
107 Sending notification of new book to reserver
108 Shelving new books behind counter
109 Shelving new books onto reserve or display shelves
110 Shelving new into stock

OTHER

999 Other

NOTE Codes marked * were identified as possible tasks but were not performed during the survey period.

6.5 TIME SPENT ON TASKS BY LIBRARY

.1 Comments

.1 The percentages given in this table are based upon the AWT for each library and for the total. These were:

All libraries	192776 minutes
BS	105486.5
CH	21444.5
N	23215
ST	46630

TIME SPENT ON TASKS BY LIBRARY (%)

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
01	3.81	3.44	.13	5.88	5.44
03	2.77	2.21	-	3.68	5.03
04	7.39	8.00	7.87	7.74	5.44
05	1.40	1.16	.38	2.68	1.83
06	.66	1.03	.28	.41	.09
07	.73	.77	.69	.42	.81
08	2.93	2.12	2.95	4.48	4.05
09	.18	.18	-	.13	.32
10	.24	.11	.48	-	.56
GENERAL CATEGORIES	20.11	19.02	12.78	25.42	23.57
11	1.08	1.07	.88	1.94	.75
12	.40	-	-	.04	1.77
13	.15	-	-	-	.69
14	1.89	2.05	-	.24	3.36
EXTERNAL RELATIONS	3.52	3.12	.88	2.22	6.57
16	.71	.85	.38	1.07	.33
17	2.36	2.43	1.43	1.80	2.95
INQUIRY WORK	3.07	3.28	1.81	2.87	3.28
18	.29	.34	-	.49	.21
19	2.07	2.02	1.80	2.63	2.01
20	2.89	2.74	1.66	4.24	2.97
21	.03	-	.23	-	-
22	.003	.005	-	-	-
23	.13	-	.46	.68	-
24	.29	.48	.09	.14	.002
25	3.38	2.53	2.75	.37	7.45
26	2.37	2.32	2.35	.39	3.58
27	2.66	2.69	2.24	.48	3.98
LIBRARY & COUNTER DUTIES	14.113	13.125	11.58	9.42	20.202
28	.51	.88	.14	-	.05
29	1.28	.13	-	-	5.45
OVERDUES	1.79	1.01	.14	-	5.50

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
31	.76	.67	2.06	.72	.35
32	.08	-	.14	.24	.18
34	4.39	2.83	5.46	3.33	8.27
35	4.91	3.38	1.14	8.48	8.66
36	2.97	3.50	2.75	5.81	.22
LIBRARY MACHINERY	13.11	10.38	11.55	18.58	17.68
37	.40	.74	-	-	-
38	.12	.20	.14	-	-
39	.05	.09	-	-	-
40	.37	.42	.13	.84	.11
41	.03	-	-	.25	-
43	.05	-	-	-	.23
SPECIAL COLLECTIONS & SERVICES	1.02	1.45	.27	1.09	.34
44	.05	-	-	.41	-
46	.01	-	-	.05	-
50	.08	-	-	.65	-
SPECIAL INDEXES	.14	-	[illegible]	1.11	-
51	8.14	10.00	5.92	11.74	2.69
53	1.38	1.86	1.90	1.24	-
ORDERING	9.52	11.86	7.82	12.98	2.69
54	.46	.38	1.67	.53	-
55.	.06	-	-	.53	-
56	2.28	3.33	3.31	.74	-
57	.13	.24	-	-	-
58	.03	-	.14	-	.06
UNPACKING & ACCESSIONING	2.96	3.95	5.12	1.80	.06
59	.24	-	-	-	1.08
60	.11	-	.97	-	-
61	.40	-	3.59	-	-
PREPARING ACCESSIONED BKS. FOR CAT. AND CLASS.	.75	-	4.56	-	1.08

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
62	2.75	2.89	5.71	3.38	.56
63	1.38	2.03	2.37	-	-
64	.68	1.25	-	-	-
65	.59	-	-	4.88	-
66	.75	-	-	-	3.40
67	.40	-	3.60	-	-
68	1.18	1.70	2.24	-	-
69	.33	-	-	-	1.47
70	.40	.57	.83	-	-
71	.75	.71	-	-	1.62
72	.06	-	.52	-	-
73	.23	.30	.04	.03	.25
CATALOGUING, CLASSIFYING & INDEXING	9.50	9.45	15.31	8.29	7.30
75	.11	-	-	.95	-
76	.09	-	.80	-	-
77	.06	.11	-	-	-
TYPING CATALOGUE CARDS & SUBJECT INDEX	.26	.11	.80	.95	-
78	.36	.57	.45	-	-
79	.01	-	-	.06	-
80	.25	-	-	-	1.11
PROOF-READING	.62	.57	.45	.06	1.11
81	.05	-	-	-	.25
82	.08	.05	.24	.20	-
83	.18	.03	.44	.12	.42
84	.10	.05	.26	.15	.13
85	.04	-	.15	-	.11
87	.05	.09	-	-	-
87A	.02	.04	-	-	-
SORTING CARDS & SLIPS IN PREPARATION FOR FILING	.52	.26	1.09	.47	.91

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
88	.57	.68	.51	.23	.51
89	.09	-	.80	-	-
90	.02	-	-	-	.11
91	.24	.20	.26	.19	.36
92	.05	-	.45	-	-
93	.06	-	.08	.32	.05
95	.05	.09	-	-	-
96	.08	.14	-	-	-
97	.38	.65	-	-	.14
99	.01	-	.07	-	-
FILING OF CARDS & SLIPS	1.55	1.76	2.17	.74	1.17
100	2.25	1.61	3.97	2.90	2.64
101	.45	.82	-	-	-
102	.71	1.30	-	-	-
103	.23	.42	-	-	-
104	1.49	2.73	-	-	-
PROCESSING BOOKS	5.13	6.88	3.97	2.90	2.64
105	.19	.35	-	-	-
106	.06	-	.14	-	.21
107	.10	.17	-	.03	-
108	.01	-	-	-	.06
109	.08	-	.74	-	-
110	.74	1.24	.22	.15	.07
PUTTING PROCESSED BOOKS INTO STOCK	1.18	1.76	1.10	.18	.34
999	11.20	12.02	18.59	10.93	5.61
OTHER	11.20	12.02	18.59	10.93	5.61
TOTAL %	100	100	100	100	100
A.W.T.	192,776	105,486.5	21,444.5	23,215	42,630

6.6 TIME SPENT ON TASKS : PROFESSIONAL/NON PROFESSIONAL (%)

CODE	PROFESSIONAL		NON-PROFESSIONAL	
	% AWT	% TAWT	% AWT	% TAWT
01	1.77	.74	5.28	3.06
03	5.19	2.18	1.01	.59
04	12.21	5.13	3.89	2.26
05	2.12	.89	.88	.51
06	.63	.27	.69	.40
07	1.39	.58	.25	.15
08	4.47	1.88	1.81	1.05
09	.22	.09	.16	.09
10	.03	.01	.39	.22
GENERAL CATEGORIES	28.03	11.77	14.36	8.33
11	2.02	.85	.41	.24
12	.93	.39	.01	.01
13	.36	.15	-	-
14	4.46	1.87	.03	.02
EXTERNAL RELATIONS	7.77	3.26	.45	.27
16	.49	.21	.86	.50
17	2.67	1.12	2.13	1.23
INQUIRY WORK	3.16	1.33	2.99	1.73
18	.01	.004	.49	.28
19	.48	.20	3.22	1.87
20	.81	.34	4.33	2.51
21	.04	.02	.01	.01
22	-	-	.004	.002
23	.01	.003	.22	.13
24	-	-	.50	.29
25	.07	.03	5.78	3.35
26	.31	.13	3.85	2.24
27	.02	.01	4.57	2.65
LIBRARY AND COUNTER DUTIES	1.75	.737	22.974	13.332
28	.07	.03	.82	.48
29	.17	.07	2.09	1.21
OVERDUES	.24	.10	2.91	1.69

CODE	PROFESSIONAL % AWT	PROFESSIONAL % TAWT	NON-PROFESSIONAL % AWT	NON-PROFESSIONAL % TAWT
31	.34	.14	1.06	.62
32	.02	.01	.13	.07
34	.88	.37	6.93	4.02
35	6.22	2.61	3.96	2.30
36	5.02	2.11	1.49	.86
LIBRARY MACHINERY	12.48	5.24	13.57	7.87
37	-	-	.70	.40
38	.02	.01	.20	.12
39	.11	.05	-	-
40	.82	.34	.05	.03
41	.01	.004	.04	.03
43	-	-	.09	.05
SPECIAL COLLECTIONS & SERVICES	.96	.404	1.08	.63
44	.09	.04	.02	.01
46	-	-	.01	.01
50	-	-	.13	.08
SPECIAL INDEXES	.09	.04	.16	.10
51	13.63	5.72	4.17	2.42
53	.13	.05	2.28	1.32
ORDERING	13.76	5.77	6.45	3.74
54	.06	.02	.75	.43
55	-	-	.11	.06
56	.05	.02	3.89	2.26
57	-	-	.23	.13
58	-	-	.05	.03
UNPACKING AND ACCESSIONING	.11	.04	5.03	2.91
59	-	-	.41	.24
60	-	-	.19	.11
61	.01	.004	.68	.39
PREPARING ACCESSIONED BKS. FOR CAT. AND CLASS.	.01	.004	1.28	.74

CODE	PROFESSIONAL		NON-PROFESSIONAL	
	% AWT	% TAWT	% AWT	% TAWT
62	2.54	1.07	2.89	1.68
63	1.76	.74	1.10	.64
64	.76	.32	.63	.36
65	1.29	.54	.08	.04
66	1.79	.75	-	-
67	.95	.40	.004	.002
68	1.26	.53	1.12	.65
69	.05	.02	.53	.30
70	.88	.37	.06	.03
71	1.43	.60	.25	.15
72	.12	.05	.01	.01
73	.32	.13	.17	.10
CATALOGUING, CLASSIFYING & INDEXING	13.15	5.52	6.844	3.962
75	.03	.01	.17	.10
76	.21	.09	-	-
77	-	-	.11	.10
TYPING CATALGOUE CARDS AND SUBJECT INDEX	.24	.10	.28	.20
78	.75	.31	.08	.05
79	.02	.01	-	-
80	-	-	.42	.25
PROOF-READING	.77	.32	.50	.30
81	-	-	.09	.05
82	.10	.04	.06	.04
83	.05	.02	.27	.16
84	.08	.03	.12	.07
85	.02	.01	.05	.03
87	-	-	.09	.05
87A	.06	.02	-	-
SORTING CARDS AND SLIPS IN PREPARATION FOR FILING	.31	.12	.68	.40
88	.04	.01	.95	.55
89	-	-	.15	.09
90	-	-	.04	.02
91	.03	.01	.39	.23
92	-	-	.09	.05
93	.11	.05	.02	.01

CODE	PROFESSIONAL % AWT	PROFESSIONAL % TAWT	NON-PROFESSIONAL % AWT	NON-PROFESSIONAL % TAWT
95	-	-	.09	.05
96	-	-	.14	.08
97	-	-	.66	.38
99	-	-	.01	.01
FILING OF CARDS AND SLIPS	.18	.07	2.54	1.47
100	.31	.13	3.66	2.12
101	.02	.01	.76	.44
102	.08	.03	1.17	.68
103	.53	.22	.01	.01
104	.04	.02	2.55	1.48
PROCESSING BOOKS	.98	.41	8.15	4.73
105	.02	.01	.31	.18
106	-	-	.11	.06
107	.01	.004	.16	.09
108	-	-	.02	.01
109	-	-	.14	.08
110	.04	.02	1.24	.72
PUTTING PROCESSED BOOKS INTO STOCK	.07	.034	1.98	1.14
999	15.95	6.70	7.76	4.50
OTHER	15.95	6.70	7.76	4.50
TOTAL %	100	42	100	58
A.W.T.	80,957.5	192,776	111,818.5	192,776

6.7 TIME SPENT ON TASKS : INDIVIDUAL GRADES (%)

CODE	GRADE II		GRADE III		GRADE CO2	
	% AWT	% TAWT	% AWT	% TAWT	% AWT	% TAWT
01	.69	.12	2.52	.62	5.28	3.06
03	5.39	.93	5.05	1.25	1.01	.59
04	9.91	1.70	13.80	3.43	3.89	2.26
05	1.00	.17	2.90	.72	.88	.51
06	1.03	.18	.36	.09	.69	.40
07	.36	.06	2.10	.52	.25	.15
08	4.05	.70	4.76	1.18	1.81	1.05
09	.43	.07	.08	.02	.16	.09
10	-	-	.06	.01	.39	.22
GENERAL CATEGORIES	22.86	3.93	31.63	7.84	14.36	8.33
11	3.36	.58	1.08	.27	.41	.24
12	2.28	.39	-	-	.01	.01
13	.88	.15	-	-	-	-
14	7.82	1.34	2.14	.53	.03	.02
EXTERNAL RELATIONS	14.34	2.46	3.22	.80	.45	.27
16	.68	.12	.36	.09	.86	.50
17	3.21	.55	2.30	.57	2.13	1.23
INQUIRY WORK	3.89	.67	2.66	.66	2.99	1.73
18	.003	.001	.02	.004	.49	.28
19	.10	.02	.74	.18	3.22	1.87
20	.23	.04	1.21	.30	4.33	2.51
21	-	-	.07	.02	.01	.01
22	-	-	-	-	.004	.002
23	-	-	.01	.003	.22	.13
24	-	-	-	-	.50	.29
25	.07	.01	.08	.02	5.78	3.35
26	-	-	.53	.13	3.85	2.24
27	-	-	.04	.01	4.57	2.65
LIBRARY AND COUNTER DUTIES	.403	.071	2.7	.667	22.974	13.332
28	.02	.004	.10	.02	.82	.48
29	-	-	.28	.07	2.09	1.21
OVERDUES	.02	.004	.38	.09	2.91	1.69

CODE	GRADE II		GRADE III		GRADE CO2	
	% AWT	% TAWT	% AWT	% TAWT	% AWT	% TAWT
31	.14	.02	.47	.12	1.06	.62
32	-	-	.04	.01	.13	.07
34	.14	.02	1.39	.34	6.93	4.02
35	6.75	1.16	5.86	1.45	3.96	2.30
36	9.57	1.64	1.87	.46	1.49	.86
LIBRARY MACHINERY	16.60	2.84	9.63	2.38	13.57	7.87
37	-	-	-	-	.70	.40
38	-	-	.03	.01	.20	.12
39	.26	.05	.01	.003	-	-
40	1.78	.30	.15	.04	.05	.03
41	-	-	.02	.004	.04	.03
43	-	-	-	-	.09	.05
SPECIAL COLLECTIONS AND SERVICES	2.04	.35	.21	.057	1.08	.63
44	.09	.02	.08	.02	.02	.01
46	-	-	-	-	.01	.01
50	-	-	-	-	.13	.08
SPECIAL INDEXES	.09	.02	.08	.02	.16	.10
51	25.73	4.42	5.26	1.31	4.17	2.42
53	.26	.05	.04	.01	2.28	1.32
ORDERING	25.99	4.47	5.30	1.32	6.45	3.74
54	-	-	.09	.02	.75	.43
55	-	-	-	-	.11	.06
56	-	-	.09	.02	3.89	2.26
57	-	-	-	-	.23	.13
58	-	-	-	-	.05	.03
UNPACKING AND ACCESSIONING	-	-	.18	.04	5.03	2.91
59	-	-	-	-	.41	.24
60	-	-	-	-	.19	.11
61	-	-	.02	.004	.68	.39
PREPARING ACCESSIONED BKS. FOR CAT. AND CLASS	-	-	.02	.004	1.28	.74

CODE	GRADE II		GRADE III		GRADE CO2	
	% AWT	% TAWT	% AWT	% TAWT	% AWT	% TAWT
62	-	-	4.30	1.07	2.89	1.68
63	.74	.13	2.46	.61	1.10	.64
64	-	-	1.28	.32	.63	.36
65	.63	.11	1.75	.43	.08	.04
66	2.90	.50	1.02	.25	-	-
67	-	-	1.60	.40	.004	.002
68	-	-	2.13	.53	1.12	.65
69	-	-	.08	.02	.53	.30
70	-	-	1.50	.37	.06	.03
71	.14	.02	2.33	.58	.25	.15
72	-	-	.20	.05	.01	.01
73	-	-	.53	.13	.17	.10
CATALOGUING, CLASSIFYING AND INDEXING	4.41	.76	19.18	4.76	6.844	3.962
75	-	-	.05	.01	.17	.10
76	-	-	.36	.09	-	-
77	-	-	-	-	.11	.10
TYPING CATALOGUE CARDS AND SUBJECT INDEX	-	-	.41	.10	.28	.20
78	-	-	1.26	.31	.08	.05
79	-	-	.03	.01	-	-
80	-	-	-	-	.42	.25
PROOF-READING	-	-	1.29	.32	.50	.30
81	-	-	-	-	.09	.05
82	-	-	.17	.04	.06	.04
83	-	-	.08	.02	.27	.16
84	-	-	.14	.03	.12	.07
85	-	-	.04	.01	.05	.03
87	-	-	-	-	.09	.05
87A	-	-	.09	.02	-	-
SORTING CARDS AND SLIPS IN PREPARATION FOR FILING	-	-	.52	.12	.68	.40

CODE	GRADE II		GRADE III		GRADE CO2	
	% AWT	% TAWT	% AWT	% TAWT	% AWT	% TAWT
88	.04	.01	.03	.01	.95	.55
89	-	-	-	-	.15	.09
90	-	-	-	-	.04	.02
91	.01	.002	.05	.01	.39	.23
92	-	-	-	-	.09	.05
93	.02	.003	.18	.04	.02	.01
95	-	-	-	-	.09	.05
96	-	-	-	-	.14	.08
97	-	-	-	-	.66	.38
99	-	-	-	-	.01	.01
FILING OF CARDS AND SLIPS	.07	.015	.26	.06	2.54	1.47
100	.10	.02	.46	.11	3.66	2.12
101	-	-	.03	.01	.76	.44
102	-	-	.13	.03	1.17	.68
103	-	-	.90	.22	.01	.01
104	-	-	.06	.02	2.55	1.48
PROCESSING BOOKS	.10	.02	1.58	.39	8.15	4.73
105	-	-	.03	.01	.31	.18
106	-	-	-	-	.11	.06
107	-	-	.02	.004	.16	.09
108	-	-	-	-	.02	.01
109	-	-	-	-	.14	.08
110	-	-	.06	.02	1.24	.72
PUTTING PROCESSED BOOKS INTO STOCK	-	-	.11	.034	1.98	1.14
999	9.19	1.58	20.62	5.12	7.76	4.50
OTHER	9.19	1.58	20.62	5.12	7.76	4.50
TOTAL %	100	17.2	100	24.8	100	58
A.W.T.	33,097.5	192,776	47,860	192,776	111,818.5	192,776

6.8 COST OF TASKS BY LIBRARY (£)

CODE	ALL LIBRARIES	E.S.	C.H.	N.	S.T.
01	152.11	72.75	.68	31.72	46.96
03	134.47	56.43	-	19.98	58.06
04	379.29	234.74	41.24	45.07	58.24
05	67.97	31.15	2.09	15.33	19.40
06	31.54	26.81	1.19	2.72	.82
07	36.65	20.56	3.83	2.98	9.28
08	144.44	65.98	14.03	22.98	41.45
09	9.54	5.99	-	.57	2.98
10	8.89	2.26	2.15	-	4.48
GENERAL CATEGORIES	964.90	516.67	65.21	141.35	241.67
11	63.13	37.08	4.94	10.33	10.78
12	27.75	-	-	.19	27.56
13	10.68	-	-	-	10.68
14	122.81	70.13	-	1.59	51.09
EXTERNAL RELATIONS	224.37	107.21	4.94	12.11	100.11
16	31.07	20.54	1.62	5.65	3.26
17	112.35	61.11	5.98	9.08	36.18
INQUIRY WORK	143.42	81.65	7.60	14.73	39.44
18	10.57	6.67	-	2.20	1.70
19	78.89	42.38	7.30	12.12	17.09
20	109.56	56.83	6.83	21.78	24.12
21	1.22	-	1.22	-	-
22	.09	.09	-	-	-
23	4.88	-	1.88	3.00	-
24	10.48	9.50	.36	.60	.02
25	123.74	50.42	11.18	1.72	60.42
26	88.10	48.11	9.52	1.70	28.77
27	96.87	53.70	9.05	2.12	32.00
LIBRARY AND COUNTER DUTIES	524.40	267.70	47.34	45.24	164.12
28	18.95	17.84	.56	-	.55
29	47.61	3.74	-	-	43.87
OVERDUES	66.56	21.58	.56	-	44.42

CODE	ALL LIBRARIES	B.S.	C.U.	N.	S.T.
31	30.24	13.87	9.29	4.13	2.95
32	3.18	-	.57	1.20	1.41
34	165.63	59.26	22.93	16.91	66.53
35	240.48	108.59	5.07	45.03	81.79
36	171.08	121.32	11.27	36.70	1.79
LIBRARY MACHINERY	610.61	303.04	49.13	103.97	154.47
37	14.71	14.71	-	-	-
38	4.65	3.97	.68	-	-
39	3.32	3.32	-	-	-
40	24.38	16.24	.74	5.76	1.64
41	1.14	-	-	1.14	-
43	1.84	-	-	-	1.84
SPECIAL COLLECTIONS, AND SERVICES	50.04	38.24	1.42	6.90	3.48
44	2.65	-	-	2.65	-
46	.23	-	-	.23	-
50	2.83	-	-	2.83	-
SPECIAL INDEXES	5.71	-	-	5.71	-
51	472.94	340.46	27.60	69.71	35.17
53	51.83	38.57	7.76	5.50	-
ORDERING	524.77	379.03	35.36	75.21	35.17
54	16.93	7.50	6.74	2.69	-
55	2.34	-	-	2.34	-
56	83.33	66.35	13.75	3.23	-
57	4.85	4.85	-	-	-
58	1.09	-	.57	-	.52
UNPACKING/ ACCESSIONING	108.54	78.70	21.06	8.26	.52
59	8.70	-	-	-	8.70
60	3.92	-	3.92	-	-
61	14.58	-	14.58	-	-
PREPARING ACCESSIONED BKS. FOR CAT. & CLASS.	27.20	-	18.50	-	8.70

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
62	116.30	68.28	27.29	16.01	4.72
63	72.86	59.19	13.67	-	-
64	29.73	29.73	-	-	-
65	31.80	-	-	31.80	-
66	48.10	-	-	-	48.10
67	20.69	-	20.69	-	-
68	52.74	42.66	10.08	-	-
69	12.18	-	-	-	12.18
70	23.98	19.18	4.80	-	-
71	38.44	21.74	-	-	16.70
72	2.89	-	2.89	-	-
73	10.38	8.04	.21	.15	1.98
CATALOGUING, CLASSIFYING & INDEXING	460.09	248.82	79.63	47.96	83.68
75	4.34	-	-	4.34	-
76	4.59	-	4.59	-	-
77	2.26	2.26	-	-	-
TYPING CATALOGUE CARDS AND SUBJECT INDEX	11.19	2.26	4.59	4.34	-
78	17.96	15.82	2.14	-	-
79	.40	-	-	.40	-
80	8.91	-	-	-	8.91
PROOF READING	27.27	15.82	2.14	.40	8.91
81	2.00	-	-	-	2.00
82	3.49	1.45	1.12	.92	-
83	6.73	.98	1.79	.55	3.41
84	4.27	1.44	1.03	.76	1.04
85	1.59	-	.74	-	.85
87	1.84	1.84	-	-	-
87A	1.21	1.21	-	-	-
SORTING CARDS AND SLIPS	21.13	6.92	4.68	2.23	7.30

CODE	ALL LIBRARIES	B.S.	C.H.	N.	S.T.
88	20.94	13.58	2.05	1.23	4.08
89	3.25	-	3.25	-	-
90	.85	-	-	-	.85
91	8.99	4.09	1.05	.94	2.91
92	1.84	-	1.84	-	-
93	2.89	-	.47	2.02	.40
95	1.89	1.89	-	-	-
96	2.87	2.87	-	-	-
97	13.96	12.85	-	-	1.11
99	.28	-	.28	-	-
FILING CARDS AND SLIPS	57.76	35.28	8.94	4.19	9.35
100	84.26	33.68	16.08	13.31	21.19
101	16.37	16.37	-	-	-
102	26.30	26.30	-	-	-
103	11.83	11.83	-	-	-
104	54.52	54.52	-	-	-
PROCESSING BOOKS	193.28	142.70	16.08	13.31	21.19
105	7.02	7.02	-	-	-
106	2.29	-	.58	-	1.71
107	3.56	3.36	-	.20	-
108	.48	-	-	-	.48
109	2.99	-	2.99	-	-
110	27.05	24.87	.91	.70	.57
PUTTING PROCESSED BOOKS INTO STOCK	43.39	35.25	4.48	.90	2.76
999	539.93	323.02	94.73	56.29	65.89
OTHER	539.93	323.02	94.73	56.29	65.89
TOTAL	4,604.56	2,603.89	466.39	543.10	991.18

6.9 COST OF TASKS : PROFESSIONAL/NON PROFESSIONAL (£)

CODE	PROFESSIONAL	NON/PROFESSIONAL
01	40.75	111.36
03	94.99	39.48
04	297.17	82.12
05	49.33	18.64
06	17.05	14.49
07	31.33	5.32
08	106.29	38.15
09	6.21	3.33
10	0.74	8.15
GENERAL CATEGORIES	643.86	321.04
11	54.59	8.54
12	27.56	0.19
13	10.68	-
14	121.99	0.82
EXTERNAL RELATIONS	214.82	9.55
16	12.88	18.19
17	67.50	44.85
INQUIRY WORK	80.38	63.04
18	0.24	10.33
19	10.88	68.01
20	18.31	91.25
21	0.94	0.28
22	-	0.29
23	0.14	4.74
24	-	10.48
25	1.82	121.92
26	6.81	81.29
27	0.54	96.33
LIBRARY AND COUNTER DUTIES	39.68	484.72
28	1.61	17.34
29	3.60	44.01
OVERDUES	5.21	61.35

CODE	PROFESSIONAL	NON/PROFESSIONAL
31	7.81	22.43
32	0.54	2.64
34	19.51	146.12
35	156.86	83.62
36	139.63	31.45
LIBRARY MACHINERY	324.35	286.26
37	-	14.71
38	0.40	4.25
39	3.32	-
40	23.39	0.99
41	0.20	0.94
43	-	1.84
SPECIAL COLLECTIONS AND SERVICES	27.31	22.73
44	2.17	0.48
46	-	0.23
50	-	2.83
SPECIAL INDEXES	2.17	3.54
51	385.06	87.88
53	3.66	48.17
ORDERING	388.72	136.05
54	1.21	15.72
55	-	2.34
56	1.18	82.15
57	-	4.85
58	-	1.09
UNPACKING AND ACCESSIONING	2.39	106.15
59	-	8.70
60	-	3.92
61	0.23	14.35
PREPARING ACCESSIONED BOOKS FOR CAT. AND CLASS.	0.23	26.97

CODE	PROFESSIONAL	NON/PROFESSIONAL
62	55.28	61.02
63	49.67	23.19
64	16.50	13.23
65	30.17	1.63
66	48.10	-
67	20.61	0.08
68	29.14	23.60
69	1.10	11.08
70	22.76	1.22
71	33.16	5.28
72	2.61	0.28
73	6.87	3.51
CATALOGUING, CALSSIFYING AND INDEXING	315.97	144.12
75	0.67	3.67
76	4.59	-
77	-	2.26
TYPING CATALOGUE CARDS AND SUBJECT INDEX	5.26	5.93
78	16.26	1.70
79	0.40	-
80	-	8.91
PROOF READING	16.66	10.61
81	-	2.00
82	2.22	1.27
83	1.06	5.67
84	1.75	2.52
85	0.46	1.13
87	-	1.84
87A	1.21	-
SORTING CARDS AND SLIPS IN PREPARATION FOR FILING	6.70	14.43

CODE	PROFESSIONAL	NON/PROFESSIONAL
88	0.89	20.05
89	-	3.25
90	-	0.85
91	0.70	8.29
92	-	1.84
93	2.49	0.40
95	-	1.89
96	-	2.87
97	-	13.96
99	-	0.28
FILING OF CARDS AND SLIPS	4.08	53.68
100	7.02	77.24
101	0.41	15.96
102	1.68	24.62
103	11.55	0.28
104	0.79	53.73
PROCESSING BOOKS	21.45	171.83
105	0.40	6.62
106	-	2.29
107	0.20	3.36
108	-	0.48
109	-	2.99
110	0.80	26.25
PUTTING PROCESSED BOOKS INTO STOCK	1.40	41.99
999	376.21	163.72
OTHER	376.21	163.72
TOTAL	2,476.85	2,127.71

6.10 COST OF TASKS : INDIVIDUAL GRADES (£)

CODE	GRADE I	GRADE II	GRADE III	GRADE CO2
01		8.40	32.35	111.36
03		30.11	64.88	39.48
04		119.76	177.41	82.12
05		12.04	37.29	18.64
06		12.42	4.63	14.49
07		4.29	27.04	5.32
08		48.91	57.38	38.15
09		5.20	1.01	3.33
10		-	0.74	8.15
GENERAL CATEGORIES	-	241.13	402.73	321.04
11		40.65	13.94	8.54
12		27.56	-	0.19
13		10.68	-	-
14		94.44	27.55	0.82
EXTERNAL RELATIONS	-	173.33	41.49	9.55
16		8.22	4.66	18.19
17		38.78	28.72	44.85
INQUIRY WORK	-	47.00	33.38	63.04
18		0.04	0.20	10.33
19		1.22	9.66	68.01
20		2.77	15.54	91.25
21		-	0.94	0.28
22		-	-	0.09
23		-	0.14	4.74
24		-	-	10.48
25		0.82	1.00	121.92
26		-	6.81	81.29
27		-	0.54	96.33
LIBRARY AND COUNTER DUTIES	-	4.85	34.83	484.72
28		0.27	1.34	17.34
29		-	3.60	44.01
OVERDUES	-	0.27	4.94	61.35

CODE	GRADE I	GRADE II	GRADE III	GRADE CO2
31		1.73	6.08	22.43
32		-	0.54	2.64
34		1.64	17.87	146.12
35		81.58	75.28	83.62
36		115.58	24.05	31.45
LIBRARY MACHINERY	-	200.53	123.82	286.26
37		-	-	14.71
38		-	0.40	4.25
39		3.19	0.13	-
40		21.44	1.95	0.99
41		-	0.20	0.94
43		-	-	1.84
SPECIAL COLLECTIONS AND SERVICES	-	24.63	2.68	22.73
44		1.10	1.07	0.48
46		-	-	0.23
50		-	-	2.83
SPECIAL INDEXES	-	1.10	1.07	3.54
51	6.63	310.81	67.62	87.88
53	-	3.19	0.47	48.17
ORDERING	6.63	314.00	68.09	136.05
54		-	1.21	15.72
55		-	-	2.34
56		-	1.18	82.15
57		-	-	4.85
58		-	-	1.09
UNPACKING AND ACCESSIONING	-	-	2.39	106.15
59		-	-	8.70
60		-	-	3.92
61		-	0.23	14.35
PREPARING ACCESSIONED BOOKS FOR CAT. AND CLASS.	-	-	0.23	26.97

CODE	GRADE I	GRADE II	GRADE III	GRADE CO2
62	-	-	55.28	61.02
63	9.13	8.91	31.63	23.19
64	-	-	16.50	13.23
65	-	7.67	22.50	1.63
66	-	35.04	13.06	-
67	-	-	20.61	0.08
68	1.74	-	27.40	23.60
69	-	-	1.10	11.08
70	3.53	-	19.23	1.22
71	1.56	1.64	29.96	5.28
72	-	-	2.61	0.28
73	-	-	6.87	3.51
CATALOGUING, CLASSIFYING AND INDEXING	15.96	53.26	246.75	144.12
75		-	0.67	3.67
76		-	4.59	-
77		-	-	2.26
TYPING CATALOGUE CARDS AND SUBJECT INDEX	-	-	5.26	5.93
78		-	16.26	1.70
79		-	0.40	-
80		-	-	8.91
PROOF-READING	-	-	16.66	10.61
81		-	-	2.00
82		-	2.22	1.27
83		-	1.06	5.67
84		-	1.75	2.52
85		-	0.46	1.13
87		-	-	1.84
87A		-	1.21	-
SORTING CARDS AND SLIPS IN PREPARATION FOR FILING	-	-	6.70	14.43

CODE	GRADE I	GRADE II	GRADE III	GRADE CO2
88		0.48	0.41	20.05
89		-	-	3.25
90		-	-	0.85
91		0.11	0.59	8.29
92		-	-	1.84
93		0.18	2.31	0.40
95		-	-	1.89
96		-	-	2.87
97		-	-	13.96
99		-	-	0.28
FILING OF CARDS AND SLIPS	-	0.77	3.31	53.68
100		1.10	5.92	77.24
101		-	0.41	15.96
102		-	1.68	24.62
103		-	11.55	0.28
104		-	0.79	53.73
PROCESSING BOOKS	-	1.10	20.35	171.83
105		-	0.40	6.62
106		-	-	2.29
107		-	0.20	3.36
108		-	-	0.48
109		-	-	2.99
110		-	0.80	26.25
PUTTING PROCESSED BOOKS INTO STOCK	-	-	1.40	41.99
999	-	111.07	265.14	163.72
OTHER	-	117.07	265.14	163.72
TOTAL	22.59	1,173.04	1,281.22	2,127.71

6.11 UNIT COSTS AND TIMES

All times are in minutes and all costs in £.

.1 CODE 23 : CONVERSION TO BROWN ISSUE SYSTEM

Grade	Library	Time	Cost	No. Vols.	Unit Time	Unit Cost
All	All	256.25	4.88	258	0.99	0.02
Lib 3	All	5.25	.14	7	0.75	0.02
CO2	All	251.00	4.74	251	1.00	0.02
All	CH	99.5	1.88	50	1.99	0.04
All	N	156.75	3.00	208	0.75	0.01

.2 CODE 24 : RESERVATIONS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	All	16	.30	4	4	0.08
CO2	S	15	.28	3	5	.09
CO2	N	1	.02	1	1	.02

.3 CODE 25 : INTERLIBRARY LOANS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	All	4,311.1	81.31	291	14.81	.28
CO2	BS	2,667.5	50.33	54	49.40	.93
CO2	CH	288	5.42	52	5.54	.11
CO2	N	40	.76	5	8.00	.15
CO2	S	1,315.6	24.80	180	7.31	.14

.4 CODE 28 : SENDING OVERDUES

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	917	17.69	404	2.27	.04
Lib 3	All	50	1.34	17	2.94	.08
CO2	All	867	16.35	387	2.24	.04
All	BS	902	17.41	396	2.28	.04
CO2	CH	15	.28	8	1.88	.04

.5 CODE 29 : FINAL LETTERS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	951.5	18.95	327	2.91	.06
Lib 3	BS	126.5	3.40	61	2.07	.06
CO2	ST	825.0	15.55	266	3.10	.06

.6 CODE 44 : INDEXING PERIODICAL ARTICES AND ILLUSTRATIONS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	N	80.5	2.10	23	3.50	.09
Lib 2	N	15	.55	5	3.00	.11
Lib 3	N	40	1.07	5	8.00	.21
Profess.	N	55	1.62	10	5.50	.16
CO2	N	25.5	.48	13	1.96	.04

.7 CODE 46 : INDEXING BRITISH & INTERNATIONAL STANDARDS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	N	12	.23	1	12	.23

.8 CODE 54 : UNPACKING BOOKS, CHECKING PACKING NOTE OR INVOICE

Grade	Library	Time	Cost	No.	Unit Time	Unit* Cost
All	All	852.5	16.44	1,535	.56	1.07
Lib 3	N	45	1.21	27	1.67	4.48
CO2	All	807.5	15.23	1,508	.54	1.01
CO2	BS	397.5	7.50	1,099	.36	.68
CO2	CH	331.5	6.25	334	.99	1.87
All	N	123.5	2.69	102	1.21	2.64

*per 100 volumes

.9 CODE 55 : CHECKING ARRIVED BOOKS AGAINST ON ORDER FILE

Grade	Library	Time	Cost	No. (Titles)	Unit Time	Unit* Cost
CO2	N	124	2.34	73	1.70	3.21

* per 100 titles

.10 CODE 56 : ACCESSIONING

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	3,862.5	73.20	1,916	2.02	.04
Lib 3	CH	44	1.18	16	2.75	.07
CO2	All	3,818.5	72.02	1,900	2.01	.04
CO2	BS	2,992	56.42	1,500	1.99	.04
All	CH	699.5	13.55	316	2.21	.04
CO2	N	171	3.23	100	1.71	.03

Note: The following figures are taken from a timing study carried out at B.S. in the previous month and relate to accessioning and [illegible]

Accessioning: 1.53 min. (18 titles, 19 volumes; average on volume count). In the diary survey this person (a CO2) averaged 1.58 min. (1,079 vols.)

Accessioning (another CO2):

picking up book and removing slip	2.7 secs.
finding order slip in on order file	12.8 "
finding and marking off order	21.6 "
checking and marking packing note	13.4 "
completing accession card	36.1 "
" " " (author, title class no. only)	44.9 "
stamping accession no. on accession card	3.9 "
pick up and stamp book card	5.6 "
sticking in book pocket	*7.6 "
stamping accession no. on back of title page	8.0 "
stamping 'Degree Reference'	2.1 "
putting book onto pile	2.4 "

*(See also Code 100)

.11 CODE 57 : PACKING BOOKS FOR SITE LIBRARIES

Grade	Library	Time	Cost	No.	Unit Time	Unit* Cost
CO2	BS	242	4.57	520	.47	.88

*per 100 books

.12 CODE 58 : UNPACKING ACCESSIONED BOOKS

Grade	Library	Time	Cost	No.	Unit Time	Unit* Cost
CO2	All	45	.85	75	.60	1.13
CO2	CH	30	.57	40	.75	1.43
CO2	ST	15	.28	35	.43	.80

*per 100 books

.13 CODE 59 : CHECKING UNPACKED BOOKS AGAINST CATALOGUE

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	ST	261.5	4.93	111	2.36	.04

.14 CODE 60 : PREPARING CHECKING SLIPS

(The order slip data and accession number are entered and checked against book)

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	CH	207.5	3.92	112	1.85	0.04

.15 CODE 61 : CHECKING CHECKING SLIPS AGAINST CATALOGUE
(The accession no. is copied onto a copy of the order slip in the catalogue)

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	CH	769.5	14.58	324	2.38	.05
Lib 3	CH	8.5	.23	11	.77	.02
CO2	CH	761.0	14.35	313	2.43	.05

.16 CODE 63 : CLASSIFY
(Bliss and DC at BS; DC or UDC at CH).

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	2,795.75	71.45	503	5.56	.14
Lib 1	BS	220	9.13	57	3.86	.16
Lib 2	BS	244	8.91	64	3.81	.14
Lib 3	All	1,177.25	31.63	237	4.97	.13
Profess.	All	1,641.25	49.67	358	4.58	.14
CO2	BS	1,154.5	21.78	145	7.96	.15
All	BS	2,287	57.78	359	6.37	.16
Lib 3	CH	508.75	13.67	144	3.53	.09

Unit times for identifiable classification schemes at BS:

Dewey		Bliss	
Lib 1	3.86	Lib 2	3.81
*Lib 3	8.39	Lib 3	6.97
		CO2	7.96

*This was the first time this person had classified by Dewey.

Timing figures for a CO2 using Bliss = 5.80

.17 CODE 64 : CHECKING CLASSIFIED BOOKS AGAINST CATALOGUE

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	1,301	29.45	205	6.35	.14
Lib 3	BS	615	16.50	99	6.21	.17
CO2	BS	686	12.95	106	6.47	.12

.18 CODE 65 : CATALOGUING, CLASSIFYING, SUBJECT INDEXING

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	N	1,090.5	30.41	189	5.77	.16
Lib 2	N	180	6.57	39	4.62	.17
Lib 3	N	837.5	22.50	132	6.34	.17
Profess.	N	1,017.5	29.07	171	5.95	.17
CO2	N	73	1.34	18	4.06	.07

.19 CODE 66 : CLASSIFYING, SUBJECT INDEXING

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
Lib 3	ST	486	13.06	145	3.35	.09

.20 CODE 67 : CATALOGUE ONTO CLASSIFIED CARDS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	CH	771	20.69	144	5.35	.14
Lib 2	CH	767	20.61	143	5.36	.14
CO2	CH	4	.08	1	4.00	.08

.21 CODE 68 : CATALOGUING ONTO WORKSHEETS (SLIPS)

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	1,902.5	45.01	419	4.54	.11
Lib 1	BS	42	1.74	17	2.47	.10
Lib 3	All	1,019.5	27.40	194	5.26	.14
Profess.	All	1,061.5	29.14	211	5.03	.14
CO2	All	841	15.87	208	4.04	.08
All	BS	1,437.5	35.21	306	4.70	.12
All	CH	465	9.80	113	4.12	.09

Timing study figures (CO2) averaged 3.08 min.

.22 CODE 69 : CATALOGUING ONTO ACCESSION CARDS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	ST	178	3.63	50	3.56	.07
Lib 3	ST	33	.89	7	4.71	.13
CO2	ST	145	2.74	43	3.37	.06

.23 CODE 71 : CHECKING CATALOGUING

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	1,440	36.88	750	1.92	.05
Lib 2	ST	45	1.64	19	2.37	.09
Lib 3	All	1,115	29.96	456	2.45	.07
Profess	All	1,160	31.60	475	2.44	.07
CO2	ST	280	5.28	275	1.02	.02
Lib 3	BS	751	20.18	263	2.86	.08
All	ST	689	16.70	487	1.41	.03

Timing figures Lib 3: 1.27 min.
CO2 : 1.02 min.

.24 CHECKING CATALOGUING AND CLASSIFICATION

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
Lib 3	CH	97	2.61	56	1.73	.05

.25 CODE 73 : DUPLICATES
(Adding accession numbers onto existing catalogue cards)

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	420	9.96	84	5.00	.12
Lib 3	All	256	6.87	47	5.45	.15
CO2	All	164	3.09	37	4.43	.08
All	BS	299	7.62	51	5.86	.15
Lib 3	CH	8	.21	10	.80	.02
CO2	N	8	.15	3	2.67	.05
CO2	ST	105	1.98	20	5.25	.10

.26 CODE 75 : TYPING ADDED ENTRIES AND BINDER LISTS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	N	204.5	4.05	79	2.59	.05
Lib 3	N	25	0.67	16	1.56	.04
CO2	N	179.5	3.38	63	2.85	.05

.27 CODE 76 : TYPING SUBJECT INDEX (CARDS)

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
Lib 3	CH	171	4.59	210	81.43	2.19

* per 100 cards

.28 CODE 78 : PROOF-READING TYPED CATALOGUE CARDS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	665	17.39	1,069	62.21	1.63
Lib 3	All	605	16.26	849	71.26	1.92
CO2	CH	60	1.13	220	27.27	.51
Lib 3	BS	567.5	15.25	737	77.00	2.07
All	CH	97.5	2.14	332	29.37	.64

*per 100 cards

Note: The following figures are taking from the timing survey.

Proof-reading typed catalogue cards: 96.89 mins. (this figure is the time taken to proof-read 100 sets of catalogue cards i.e. the cards produced from 100 titles). There is no equivalent figure from the diary survey for this task or this person (a C02).

.29 CODE 80 : PROOF-READING, TYPING ADDED ENTRY HEADINGS AND SUBJECT INDEX

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
C02	ST	472.5	8.91	425	111.18	2.10

*per 100 cards

.30 CODE 81 : SORTING CARDS INTO SUBJECT, AUTHOR AND CLASSIFIED BATCHES

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
C02	ST	75.5	1.42	870	8.68	.16

*per 100 cards

.31 CODE 82 : SORTING CARDS INTO CLASSIFIED AND AUTHOR BATCHES

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	151	3.49	1,354	11.15	.26
Lib 3	All	83	2.22	1,012	8.20	.22
C02	All	68	1.27	342	19.88	.37
All	BS	54	1.45	840	6.43	.17
All	CH	51	1.12	382	13.35	.29
All	N	46	.92	132	34.85	.69

*per 100 cards

Note: The following figures are taken from the timing study already mentioned.

Sorting cards into author and classified batches: 1.79 min. per 100 cards (233 cards timed). In the diary survey this person (a Lib 3) averaged 5.99 min. per 100 cards (735 cards timed).

.32 CODE 83: SORTING CARDS INTO AUTHOR ORDER

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	265	5.31	893	29.68	.59
Lib 3	All	39.5	1.06	188	21.01	.56
C02	All	225.5	4.25	705	31.99	.60

.32 Continued

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	BS	36.5	0.98	178	20.51	.55
All	CH	79.5	1.50	142	55.99	1.06
All	N	28	0.55	68	41.18	.81
All	ST	121	2.28	505	23.96	.45

*per 100 cards

Note: The following figures are taken from the timing study.

Sorting cards in author order: 10.39 min. per 100 cards (124 cards). In the diary survey this person (a Lib 3) averaged 22.56 min. per 100 cards (133 cards).

.33 CODE 84 : SORTING CARDS INTO CLASSIFIED ORDER

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	184.5	3.99	832	22.18	.48
Lib 3	All	65	1.75	398	16.33	.44
CO2	All	119.5	2.24	434	27.53	.52
All	BS	53.5	1.44	380	14.08	.38
All	CH	55	1.03	172	31.98	.60
All	N	35.5	0.76	72	49.31	1.06
All	ST	40.5	0.76	208	19.47	.37

*per 100 cards

Note: The following figures are taken from the timing study.

Sorting cards into classified order: 10.56 min. per 100 cards (109 cards). In the diary survey this person (a Lib 3) averaged 13.71 min. per 100 cards (350 cards.)

.34 CODE 85 : SORTING SUBJECT CARDS INTO ALPHABETICAL ORDER

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	62.5	1.31	341	18.33	.38
Lib 3	CH	17	0.46	136	12.50	.34
CO2	All	45.5	0.85	205	22.20	.41
All	CH	32	0.74	301	10.63	.25
CO2	ST	30.5	0.57	40	76.25	1.43

*per 100 cards

.35 CODE 87 : SORTING MOORES SLIPS INTO CLASSIFIED ORDER

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
C02	BS	60	1.13	135	44.44	.84

*per 100 slips

Note: The following figures are taken from the timing study.

Sorting Moores slips into classified order: 15.63 min. per 100 slips (108 slips). There is no equivalent figure for this person (a C02) in the diary survey.

.36 CODE 87A : SORTING CATALOGUE SLIPS INTO AUTHOR ORDER

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
Lib 3	BS	15	.40	61	24.59	.66

*per 100 slips

.37 CODE 88 : FILING AUTHOR CARDS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	1,011.1	19.44	1,586	63.75	1.23
Lib 2	All	13	0.48	8	162.50	6.00
Lib 3	All	15.5	0.41	20	77.50	2.05
Profess.	All	18.5	0.89	28	66.07	3.18
C02	All	982.6	18.55	1,558	63.07	1.19
All	BS	633.5	12.08	1,122	56.46	1.08
All	CH	108.5	2.05	187	58.02	1.10
All	N	53.1	1.23	76	69.87	1.62
All	ST	216	4.08	201	107.46	2.03

*per 100 cards

Note: The following figures are taken from the timing survey.

Filing author cards: 43.72 min. per 100 cards (110 cards). In the diary survey this person (a C02) averaged 46.38 min per 100 cards (288 cards).

.38 CODE 90 : FILING METALLURGY AND PSYCHOLOGY CARDS IN AUTHOR CATALOGUE

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
C02	ST	45	.85	51	88.24	1.67

*per 100 cards

.39 CODE 91 : FILING CLASSIFIED CARDS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	464.9	8.99	1,004	46.30	0.90
Lib 2	BS	3	0.11	6	50.00	1.83
Lib 3	All	22	0.59	29	75.86	2.03
Profess.	All	25	0.70	35	71.43	2.00
CO2	All	439.9	8.29	969	45.40	0.86
All	BS	210.5	4.09	610	34.51	0.67
CO2	CH	56	1.05	134	41.79	0.78
All	N	44.4	0.94	75	59.20	1.25
CO2	ST	154	2.91	185	83.24	1.57

*per 100 cards

Note: The following figures are taken from the timing survey.

Filing classified cards: 26.82 min. per 100 cards (56 cards). In the diary survey this person (a CO2) averaged 33.39 min. per 100 cards.

.40 CODE 93 : FILING SUBJECT INDEX CARDS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	112	2.89	282	39.72	1.02
Lib 2	N	5	0.18	1	500.00	18.00
Lib 3	All	86	2.31	244	35.25	0.95
Profess.	All	91	2.49	245	37.14	1.02
CO2	ST	21	0.40	37	56.76	1.08
Lib 3	CH	17.5	0.47	173	10.12	0.27
All	N	73.5	2.02	72	102.08	2.81

*per 100 cards

.41 CODE 95 : FILING MOORES SLIPS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
CO2	BS	45	.85	35	128.57	2.43

*per 100 slips

Note: The following figures are taken from the timing survey.

Filing Moores slips: 38.69 min. per 100 slips (39 slips). No equivalent figures are available from the diary survey for this person (a CO2).

.42 CODE 96 : FILING CATALOGUE SLIPS

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
CO2	BS	152	2.87	333	45.65	0.86

*per 100 slips

.43 CODE 97 : FILING INTO ACCESSIONS FILE

Grade	Library	Time	Cost	No.	Unit* Time	Unit* Cost
All	All	739.5	13.96	1,345	54.98	1.04
CO2	BS	681	12.85	1,095	62.19	1.11
CO2	ST	58.5	1.11	250	23.40	0.44

*per 100 cards

.44 CODE 99 : UPKEEP OF CLASSIFIED REFERENCE FILE

Grade	Library	Time	Cost	No. of cards	Unit* Time	Unit* Cost
CO2	CH	15	.28	55	27.27	0.51

*per 100 cards

.45 CODE 100 : PROCESSING BOOKS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	4,174.54	81.00	2,037	2.05	0.04
Lib 2	N	30	1.1	2	15.0	0.55
Lib 3	BS	213	5.72	113	1.88	0.05
Profess.	All	243	6.82	115	2.11	0.06
CO2	All	3,931.54	74.18	1,922	2.05	0.04
All	BS	1,582.64	31.56	1,299	1.22	0.02
CO2	CH	852	16.08	315	2.70	0.05
All	N	659	12.97	100	6.59	0.13
CO2	ST	1,080.9	20.39	323	3.35	0.06

Note: The following figures are taken from the timing survey.

Processing (CO2): writing author, title, class no., date and price on ticket	41.3 secs.
sticking in book pocket	10.9 "
sticking in date label	9.9 "
stamping	20.5 "
sticking degree reference lable on cover	7.2 "

.46 CODE 101 : TRIGGERING BOOKS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	861	16.37	832	1.03	0.02
Lib 3	BS	15.5	0.41	8	1.94	0.05
CO2	BS	845.5	15.96	824	1.03	0.02

Note: The following figures are taken from the timing survey.

Triggering books: 1.39 min. (7 books). There is no equivalent figure in the diary survey for this person (a CO2).

.47 CODE 102 : DYMOING AND TAPING

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	1367.86	26.3	881	1.55	0.03
Lib 3	BS	62.5	1.68	37	1.69	0.05
CO2	BS	1,305.36	24.62	844	1.55	0.03

.48 CODE 103 : CHECKING PROCESSED BOOKS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	445	11.83	703	0.63	0.02
Lib 3	BS	430	11.55	660	0.65	0.02
CO2	BS	15	0.28	43	0.35	0.01

.49 CODE 104 : PLASTICISING BOOK JACKETS

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	2,811	53.25	745	3.77	0.07
Lib 3	BS	29.5	.79	6	4.92	0.13
CO2	BS	2,781.5	52.46	739	3.76	0.07

Note: The following figures are taken from the timing survey.

Plasticising book jackets: 2.64 min. (4 books). In the diary survey this person (a CO2) averaged 4.48 min (102 books).

.50 CODE 105 : CHECKING NEW BOOKS AGAINST RESERVATION FILE

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	BS	343.5	6.6	573	0.60	0.01

.51 CODE 106 : SENDING SLIPS TO RESERVER AND/OR LIBRARY REPRESENTATIVE

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	All	96	1.81	152	0.63	0.01
CO2	CH	31	0.58	31	1.00	0.02
CO2	ST	65	1.23	121	0.54	0.01

.52 CODE 107 : SENDING NOTIFICATION OF NEW BOOK TO RESERVER

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	178.5	3.42	84	2.13	0.04
Lib 3	N	7.5	0.20	3	2.50	0.07
CO2	BS	171	3.22	81	2.11	0.04

.53 CODE 108 : SHELVING NEW BOOKS BEHIND THE COUNTER

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	ST	15	0.28	15	1.00	0.02

.54 CODE 109 : SHELVING NEW BOOKS ONTO RESERVE OR DISPLAY SHELVES

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
CO2	CH	158.5	2.99	182	0.87	0.02

.55 CODE 110 : SHELVING NEW BOOKS INTO STOCK

Grade	Library	Time	Cost	No.	Unit Time	Unit Cost
All	All	361	6.87	415	0.87	0.02
Lib 3	N	7.5	0.20	8	0.94	0.03
CO2	All	353.5	6.67	407	0.87	0.02
CO2	BS	264	4.98	307	0.86	0.02
CO2	CH	33	0.62	49	0.67	0.01
All	N	34	0.70	45	0.76	0.02
CO2	ST	30	0.57	14	2.14	0.04

6.12 TYPISTS

.1 The preceeding results cover those professional and non professional library staff whose work is primarily concerned with one site.

The two library typists, whilst housed at BS, undertake work for all libraries. Their data is therefore presented below.

Code	Time	Cost
01	7.5	.11
04	15.0	.22
10	120.0	1.79
15	45.0	.67
30	45.0	.67
52	195.0	2.91
74	6,420.0	95.87
999	9,022.5	134.74

7. CONCLUSIONS

.1 These results provide an extremely useful analysis of the operations of the Library and Learning Resources Service at the City of London Polytechnic.

.2 Internally, they provide us with data upon which the costing of future systems can be based and against which alternative systems can be compared.

.3 Future investigations can be suggested by some of the data. Such investigation can for example concentrate upon those areas which currently consume manpower and money. They can also look in detail at areas of work in which there is considerable variation between sites or between grades of staff and attempt to identify the factors causing this variation (e.g. the systems, the methods used to carry out the systems for the experience of of the staff).

.4 We hope that other libraries, too, will find the data useful. We have used, on many occasions, data provided by other libraries but have found some difficulty in, for example, comparing our cataloguing times because of lack of published information on the system and level of cataloguing. This report and the Book Ordering and Processing Report should together provide a more complete picture.

8. APPENDICES

.1 Organisation of the CoLP LLRS

.2 Covering letter sent out with the provisional coding sheets.

.3 Notes of guidance for completing diary forms.

.4 A diary form.

- .1 Code sheets for the Business Studies Library
- .2 Code sheets for the Central House Library
- .3 Code sheets for the Navigation Library
- .4 Code sheets for the Science Library
- .5 Code sheets for the typists

.5 A specimen completed diary form showing the mixture of count and non-count codes in a fifteen minute interval.

.6 A specimen set of interim analysis sheets.

.7 A specimen set of final analysis sheets.

.8 Analysis of cataloguing slips.

8.1 ORGANISATION OF LLRS

.1 The LLRS staff comprises people organised functionally as indicated on the attached chart.

Only those marked with an asterisk took part in the survey. In particular it should be noted that one library assistant who is concerned only with ordering and receipt of books did not take part in the survey.

8.2 COVERING LETTER SENT OUT WITH THE PROVISIONAL CODING SHEETS AND SPECIMEN DIARY FORM

FROM: Alan Pritchard

As mentioned in the "Planning and Development Notes 1" the Planning Department is currently engaged in establishing time and cost data for all processes. In order to do this, data is needed on what activities staff are engaged in, and how long they spend on each activity.

As part of this investigation it has been decided to run a diary for a month - similar to that used at Southampton University Library by R.G. Woods(1). It is envisaged that each member of staff will be provided with diary forms dividing each day into fifteen minute sections, and a coded list of activities, so that all that needs to be entered is the code, and where necessary the number of items handled. This method appears to collect the maximum amount of data for a minimum of staff time. (Woods has said this worked very well at Southampton).

The activities coded very specifically are those relating to processing and cataloguing, but as the staff concerned with these also undertake a number of other jobs these have also been coded at a more general level. The list of codes is divided into two categories:

A. Activities for which no totals are entered.

B. Activities for which totals must be entered.

These groups are indicated on the attached coding sheets by the symbol No. (V) (T) (C) and (A) refer respectively to volumes, titles, cards and articles.

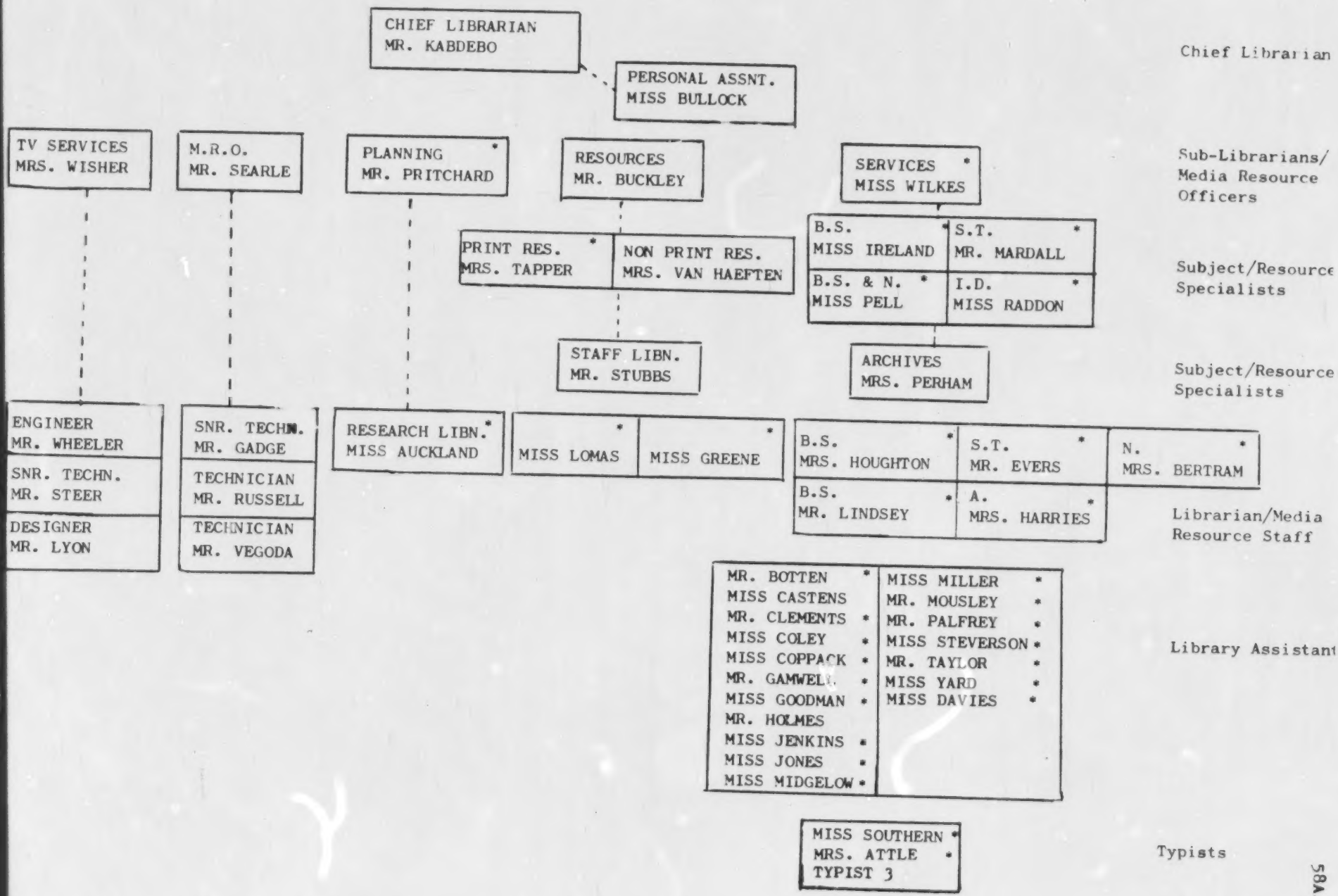
A provisional list of codes and a specimen diary form are enclosed for your comments. The coding sheets are in a very 'rough and ready' format at this stage, but should be much clearer and more conveniently coded in their final form. We have tried to break the jobs down to discrete stages, and to be as comprehensive as possible, but if you feel that any part is not practicable, or that elements have been omitted please say.

It might be useful to do a test run for perhaps half a day to see if any problems arise.

It would be very helpful if we could have your comments by Friday 22nd June.

(1) WOODS, R.G. "The cost of cataloguing: three systems compared". Southampton University Library: Automation Project Report No. 3.

CITY OF LONDON POLYTECHNIC. LIBRARY AND LEARNING RESOURCES SERVICE.
STAFF ORGANISATION CHART



DIARY FORM

NAME:..... DATE:..... SHEET NO.:.....

	MORNING			AFTERNOON			EVENING		
	Codes	Totals		Codes	Totals		Codes	Totals
9.15			13.15			17.15		
9.30			13.30			17.30		
9.45			13.45			17.45		
10.00			14.00			18.00		
10.15			14.15			18.15		
10.30			14.30			18.30		
10.45			14.45			18.45		
11.00			15.00			19.00		
11.15			15.15			19.15		
11.30			15.30			19.30		
11.45			15.45			19.45		
12.00			16.00			20.00		
12.15			16.15			20.15		
12.30			16.30			20.30		
12.45			16.45			20.45		
13.00			17.00			21.00		

No. of journeys from B.S to 308
No. of journeys from 308 to B.S.

8.3 NOTES OF GUIDANCE FOR COMPLETING THE DIARY FORMS

.1 The diary forms are to be filled in at the end of each fifteen minute interval i.e. the period from 9.00 a.m. to 9.15 a.m. will be noted at 9.15 a.m.

.2 Where more than one coded job is done during a 15 minute interval all the relevant codes are to be noted.

.3 It is most important to note the number of items handled where this is requested. The coded jobs where a count is to be entered are indicated by the symbol No.

.1 Reservations and interlibrary loans are to be counted once only, i.e. the number of new requests received. Where a request is checked at a later date, or the user notified of the availability of the item, the relevant code only should be used with no count given.

.2 No. (A) refers to the number of articles or illustrations.
No. (V) refer to the number of books
No. (T) refers tothe number of titles i.e. do not count additional numbers of multiple copies.
No. (C) refers to the number of cards.

.1 Cards to be sorted, filed or handled in any way are to be counted. In the case of a large number of cards, the counting may be preformed by measuring the thickness of a pile of cards. (This is to be done before the cards are filed - any cards then remaining to be deducted from the original total).

1 inch thickness of cards = 100 cards

thus $\frac{1}{4}$ inch thickness of cards = 25 cards

.4 Library Assistants only should include a brief explanatory note when they use the code 999 (others).

.5 If you have a half day off in lieu please indicate this on the diary form.

.6 At the end of each day the completed diary form should be removed from the folder and returned to Room M43 Moorgate.

34 Periodicals

35 Binding

36 Stock editing

Special Collections and Services

37 Current contents folders

38 Photocopy and offprint files

39 Newspaper cuttings

40 SDI Services (planning and operation at any special dissemination services not included in any other coding).

Ordering

51 Pre-ordering (scanning, selection, checking and writing out order slips).

53 Post-ordering (checking and filing of order slips).

Unpacking and Accessioning

54	Unpacking books (checking PN and/ or invoice)	No. (V)
56	Accessioning	No. (V)
57	Packing books for site libraries	No. (V)

Cataloguing, classifying and indexing

62	Catalogue maintenance (including corrections)	
63	Classifying	No. (T)
64	Checking classified books against catalogue	No. (T)
68	Cataloguing onto slips	No. (T)
70	Subject indexing	
71	Checking cataloguing	No. (T)
73	Duplicates	No. (T)

Typing Subject Index

77	Entering new terms into the subject index	No.

Proof-reading

78	Proof-reading typed catalogue cards	No. (C)

8.4 .1 Coding Sheets for the Business Studies Library

General Categories

00 Lunch Breaks

01 Tea, coffee and other amenity breaks

02 Sick leave

03 Courses, visits and interviews

04 Library staff liaison (please note initials).

05 Helping library staff including Library School Students (please note initials).

06 Receiving help from another member of staff (please note initials).

07 Supervision

08 Post

09 Financial records

10 Stationery

External Relations

11 General liaison (with academic staff)

12 Library instruction

14 Library publications (including all checking)

Inquiry Work

16 External queries

17 Internal queries (from staff and students)

Library and Counter Duties

18 Registration

19 Routine queries

20 Issuing and receiving material (including filing the issue)

22 Temporary reserve stock

24 Reservations No.

25 Interlibrary loans No.

26 Reshelving

27 Shelf tidying

Overdues

28 Sending overdues No.

29 Final letters (including checking the issue) No.

Library Machinery

31 Photocopier

8.4.2 Coding Sheets for the Central House Library

General Categories

00 Lunch Breaks

01 Tea, coffee and other amenity breaks

02 Sick leave

03 Courses, visits and interviews

04 Library staff liaison (please note initials)

05 Helping library staff including library school students (please note initials)

06 Receiving help from another member of staff (please note initials)

07 Supervision

08 Post

08 Financial records

10 Stationery

External Relations

11 General liaison (with academic staff)

12 Library instruction

14 Library publications (including all checking)

Inquiry Work

16 External queries

17 Internal queries (from staff and students)

Library and Counter Duties

18 Registration

19 Routine queries

20 Issuing and receiving material (including filing the issue)

21 Missing books

22 Temporary reserve stock

23 Conversion to Brown issue No. (V)

24 Reservations No.

25 Interlibrary loans No.

26 Reshelving

27 Shelf tidying

Sorting Cards and Slips in Prepartion for Filing

82	Sorting cards into classified and author batches	No. (C)
83	Sorting cards into author order	No. (C)
84	Sorting cards into classified order	No. (C)
86	Sorting moores slips into author order	No.
87	Sorting moores slips into classified order	No.
87A	Sorting catalogue slips (added during analysis)	

Filing of Cards and Slips

88	Filing author cards	No. (C)
91	Filing classified cards	No. (C)
95	Filing moores slips .	No.
96	Filing catalogue slips	No.
97	Filing into accessions file	No. (C)

Processing Books

100	Processing	No. (V)
101	Triggering	No. (V)
102	Dymoing and taping	No. (V)
103	Checking processed books	No. (V)
104	Plasticising book jackets	No. (V)

Putting Processed Books into Stock

105	Checking new books against reservations file	No. (T)
107	Sending notification of new book to reserver	No.
110	Shelving new books into stock	No. (V)

Other

999	Other	

Typing Subject Index

76	Typing subject index (cards)	No. (C)

Proof-reading

78	Proof-reading typed catalogue cards	No. (C)

Sorting Cards in Preparation for Filing

82	Sorting cards into classified and author batches	No. (C)
83	Sorting cards into author order	No. (C)
84	Sorting cards into classified order	No. (C)
85	Sorting subject cards into alphabetical order	No. (C)

Filing of Cards

88	Filing author cards	No. (C)
89	Checking filing of author cards	
91	Filing classified cards	No. (C)
92	Checking filing of classified cards	
93	Filing subject index cards	No. (C)
94	Checking filing of subject index cards	
99	Upkeep of classified reference file	No. (C)

Processing Books

100	Processing books	No. (V)

Putting processed books into stock

106	Sending slips to reserver and/or library representative	No.
109	Shelving new books onto reserve or display shelves	No. (V)
110	Shelving new books into stock	No. (V)

Other

999	Other	

Overdues

28 Sending overdues No.

Library Machinery

31 Photocopier

32 Microfilm and fiche readers

33 Operating reader-printer

32 Periodicals

35 Binding

36 Stock editing

Special Collections and Services

38 Photocopy and offprint files

40 SDI Services (planning and operation of any special dissemination services not included in any other coding).

Ordering

51 Pre-ordering (scanning, selection, checking and writing out order slips).

53 Post-ordering (checking and filing of returned order slips).

Unpacking and Accessioning

54 Unpacking books (checking PN and/or invoice) No. (V)

56 Accessioning No. (V)

58 Unpacking of accessioned books No. (V)

Preparing Accessioned Books for Cataloguing and Classifying

60 Preparing checking slips No.

61 Checking slips with catalogue No.

Cataloguing, Classifying and Indexing

62 Catalogue maintenance (including corrections)

63 Classifying No. (T)

67 Cataloguing onto classified cards No. (T)

68 Cataloguing onto slips No. (T)

70 Subject indexing

72 Checking catalogue and classification No. (T)

73 Duplicates No. (T)

Overdues

28 Sending overdues No.

Library Machinery

31 Photocopier

32 Microfilm and fiche readers

34 Periodicals

35 Binding

36 Stock editing

Special collections and services

40 SDI services (planning and operation of any special dissemination services not included in any other coding)

41 Trade literature

Special Indexes

44	Periodical articles and illustrations	No. (A)
45	Reports of Court	No.
46	British and International Standards	No.
47	Cmnd. Papers	No.
48	Bills	No.
49	Acts	No.
50	Statutory Instruments	No.

Ordering

51 Pre-ordering (scanning, selection, checking and writing out order slips)

53 Post-ordering (checking and filing of returned order slips)

Unpacking and Accessioning

54	Unpacking books (checking PN and/or invoice)	No. (V)
55	Checking arrived books against on-order file	No. (T)
56	Accessioning	No. (V)
58	Unpacking of accessioned books	No. (V)

Cataloguing, Classifying and Indexing

62 Catalogue maintenance (including corrections)

65	Cataloguing and classifying and indexing	No. (T)
73	Duplicates	No. (T)

8.4.3 Coding sheets for the Navigation Library

General categories

00 Lunch breaks

01 Tea, coffee and other amenity breaks

02 Sick leave

03 Courses, visits and interviews

04 Library staff liaison (please note initials)

05 Helping library staff including library school students (please note initials)

06 Receiving help from another member of staff (please note initials)

07 Supervision

08 Post

09 Financial records

10 Stationery

External relations

11 General liaison (with academic staff)

12 Library instruction

14 Library publications (including all checking)

Inquiry work

16 External queries

17 Internal queries (from staff and students)

Library and Counter Duties

18 Registration

19 Routine queries

20 Issuing and receiving material (includes filing the issue)

23 Conversion to Brown Issue No. (V)

24 Reservations No.

25 Interlibrary loans No.

26 Reshelving

27 Shelf tidying

8.4.4 Coding Sheets for the Science Library

General Categories

00 Lunch breaks

01 Tea, coffee and other amenity breaks

02 Sick leave

03 Courses, visits and interviews

04 Library staff liaison (please note initials)

05 Helping library staff including library school students (please note initials)

06 Receiving help from another member of staff (please note initials).

07 Supervision

08 Post

09 Financial records

10 Stationery

External Relations

11 General liaison (with academic staff)

12 Library instruction

13 Consultation service for staff and students

14 Library publications (including all checking)

Inquiry Work

16 External queries

17 Internal queries (from staff and students)

Library and Counter Duties

18 Registration

19 Routine queries

20 Issuing and receiving material (includes filing the issue)

24 Reservations No.

25 Interlibrary loans No.

26 Reshelving

27 Shelf tidying

Overdues

28 Sending overdues No.

29 Final letters (including checking the issue) No.

Library Machinery

31 Photocopier

Typing Catalogue Cards and Subject Index

75	Typing added entries and binder lists	No. (C)
76	Typing subject index (cards)	No. (C)

Proof-reading

79	Checking added entries	No. (C)

Sorting Cards for Filing

82	Sorting cards into classified and author batches	No. (C)
83	Sorting cards into author order	No. (C)
84	Sorting cards into classifted order	No. (C)

Filing of Cards

88	Filing autnor cards	No. (C)
91	Filing classified cards	No. (C)
93	Filing subject index cards	No. (C)

Processing Books

100	Processing books	No. (V)

Putting Processed Books into Stock

107	Sending notification of new books to reserver	No.
110	Shelving new books into stock	No.

Other

999	Other	

Filing of cards

88	Filing author cards	No. (C)
90	Filing metallurgy and psychology cards into author catalogue	No. (C)
91	Filing classified cards	No. (C)
93	Filing subject index cards	No. (C)
97	Filing into accession file	No. (C)
98	Filing metallurgy and psychology cards into accessions file	No. (C)

Processing Books

100	Processing books	No. (V)

Putting Processed Books into Stock

106	Sending slips to reserver and/or library representative	No.
108	Shelving new books behind the counter	No. (V)
110	Shelving new books into stock	No. (V)

Other

999	Other

34 Periodicals

35 Binding

36 Stock editing

Special Collections and Services

40 SDI Services (planning and operation of any special dissemination services not included in any other coding)

42 London collection

43 Prospectus collection

Ordering

51 Pre-order (scanning, selection, checking and writing out order slips).

53 Post-ordering (checking and filing of returned order slips)

Unpacking

58 Unpacking of accessioned books No. (V)

Preparing Accessioned Books for Cataloguing and Classifying

62 Catalogue maintenance (including corrections)

66 Classifying and indexing No. (T)

69 Cataloguing onto accession cards No. (T)

71 Checking cataloguing No. (T)

73 Duplicates No. (T)

Proof-reading

80 Proof-reading, typing added entry headings and subject index. No. (C)

Sorting Cards in Preparation for Filing

81 Sorting cards into subject, author and classified batches No. (C)

83 Sorting cards into author order No. (C)

84 Sorting cards into classified order No. (C)

85 Sorting subject cards into alphabetical order No. (C)

8.5 DIARY FORM - A specimen showing the mixture of codes in a fifteen minute interval.

NAME Library Assistant ..... DATE ..... SHEET NO .....

MORNING			AFTERNOON			EVENING		
	Codes	Totals		Codes	Total		Codes	Totals
9.15	27		13.15	00		17.15		
9.30	27 20		13.30	00		17.30		
9.45	25		13.45	00		17.45		
10.00	25		14.00	00		18.00		
10.15	31		14.15	25	2	18.15		
10.30	31 20		14.30	25	1	18.30		
10.45	104 16	2 A*	14.45	19		18.45		
11.00	104	2	15.00	25 04 (AB)		19.00		
11.15	01 20		15.15	04 (AB)		19.15		
11.30	104 20	3 B*	15.30	25		19.30		
11.45	104	3	15.45	25		19.45		
12.00	20 26		16.00	25		20.00		
12.15	19		16.15	16 25		20.15		
12.30	19 20 26		16.30	04 (AB) 25		20.30		
12.45	20 25		16.45	25 104	1 C*	20.45		
13.00	25		17.00	104	3	21.00		
No. of journeys from B.S. to 308					3			
No. of Journeys from 308 to B.S.					3			

8.4.5 Coding Sheets for the Typists

General Categories

00 Lunch Breaks

01 Tea, coffee and other amenity breaks

02 Sick leave

04 Library staff liaison (please note initials)

05 Helping library staff (please note initials)

06 Receiving help from another member of staff (please note initials)

08 Post

09 Financial records

10 Stationery

Typing

15 Typing library publications

30 Typing final letters No.

52 Typing order slips No.

74 Typing catalogue cards and slips

Other

999 Other (Including typing reports etc)

NAME

GRADE

LIBRARY

ANALYSIS SHEETS
- INTERIM 2

NON-COUNT
CODES

Day	32	34	35	36	40	42	43	51	53	62	999													

NAME _____ GRADE _____ LIBRARY _____ ANALYSIS SHEETS - INTERIM I

NON-COUNT CODES

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	16	17	18	19	20	26	27	31	→

NAME

GRADE

LIBRARY: Science

ANALYSIS SHEET - INTERIM 4

COUNT CODES

Day	88	90	91	93	98	100	106	108	110							

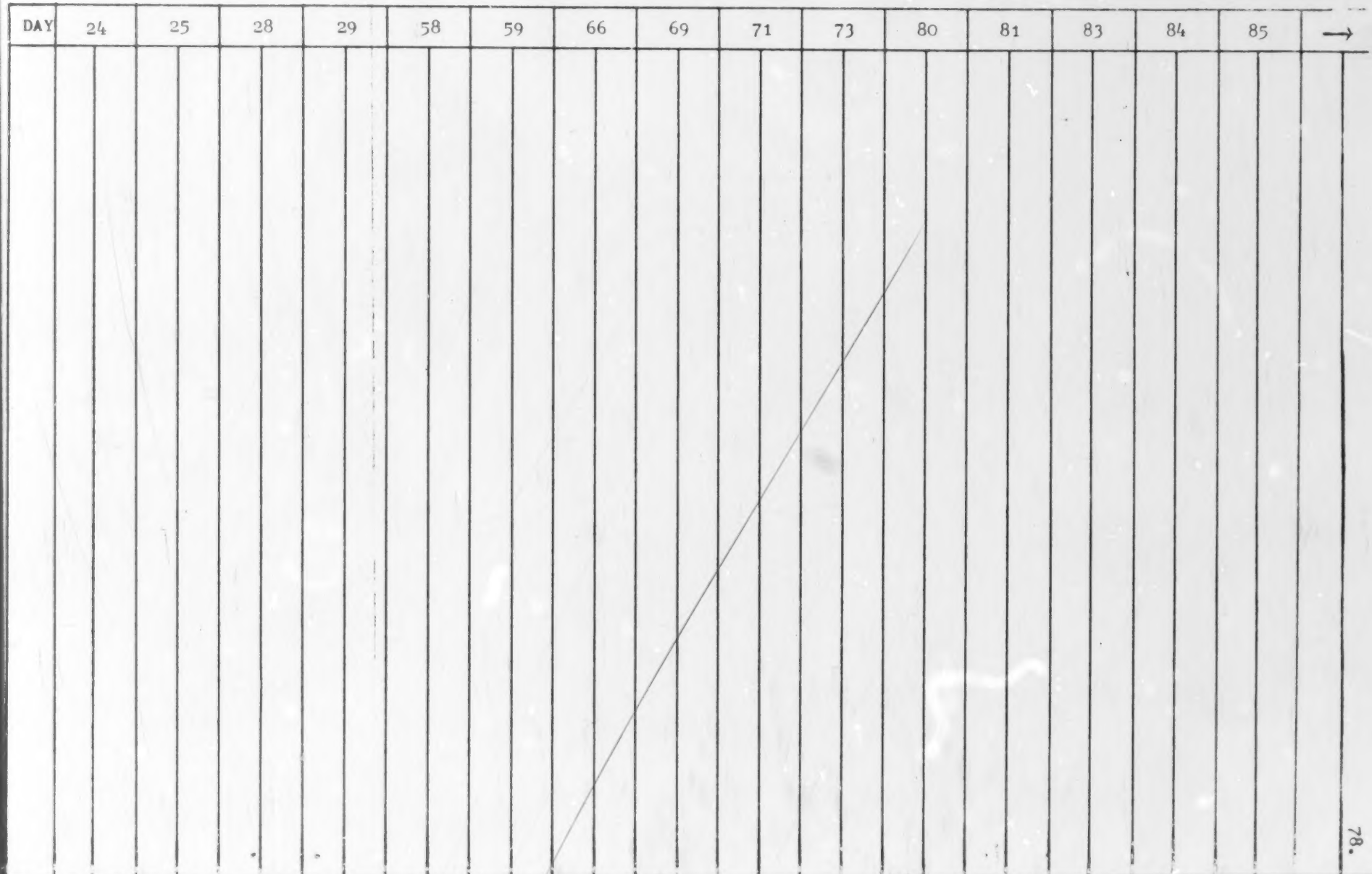
NAME

GRADE

LIBRARY: Science

ANALYSIS SHEET
- INTERIM 3

COUNT
CODES



8.7 SPECIMEN FINAL ANALYSIS FORM - Partically completed

COUNT CODES NAME.....

GRADE: Library Assistant

LIBRARY: Science

Day	2	3	2	9	5	8	5	9	6	9	8	1	6	3	8	4	8	5
1																		
2													60	200				
3																		
4																		
5			322.5	67							30	100						
6																		
7	97.5	3													15	10	15	10
8									40	18								
9	150																	
10																		
11							127.5	18										
12																		
13			315	180														
14	135				12.5													
15																		
16	112.5																	
17	97.5																	
18	150																	
19	60																	
20																		
Total																		

8.7 SPECIMEN FINAL ANALYSIS FORM - partically completed

NON-COUNT CODES NAME GRADE: Library Assistant LIBRARY: Science

Day	00	01	04	05	06	08	16	17	18	19	20	26	27	34	43	62	999		
1	60	15			22.5		7.5				7.5				22.5				
2	60	15															100		
3	60	15																	
4	60	30																	
5	60	30						7.5											
6	60	30						30											
7	60	30																	
8	60	30																	
9	60	15																	
10	60	30																	
11	60	30																	
12	60	30															30		
13	60	15				45		22.5											
14	60	30																	
15	60	30				30													
16	60	30																	
17	60	15																	
18	60	30																	
19	60	30																	
20	60	30																	

8.8 ANALYSIS OF CATALOGUING SLIPS DURING THE PERIOD 9th JULY-3rd AUGUST

.1 The cataloguing slips at BS were checked during the period of the diary having been passed as satisfactory at the proof-reading stage. After checking by the Planning Department the slips were then passed to the Sociology and Modular Degree Subject Specialist for scanning, then filed in alphabetical order in a separate file.

The slips were checked to establish data on the number of items catalogued during a four week period, the number of cards and moores slips that needed typing together with information on the number of multiple copies and the split between reference and lending.

.2 Results:

a)	Number of titles	270	
b)	Number of copies	441	
	Lending		310
	Degree Ref.		121
	Quick Ref.		4
	Counter		6
c)	Added entries	24	
d)	Moores slips	109	